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A CATALOG OF THE COLEOPTERA OF AMERICA NORTH OF MEXICO

FAMILY: DERODONTIDAE

INSTITUTE OF
ENTOMOLOGY
COLLEGE OF
SCIENCE AND
TECHNOLOGY

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FAMILIES OF COLEOPTERA IN AMERICA NORTH OF MEXICO

<i>Fascicle</i> ¹ Family	Year issued	<i>Fascicle</i> ¹ Family	Year issued	<i>Fascicle</i> ¹ Family	Year issued
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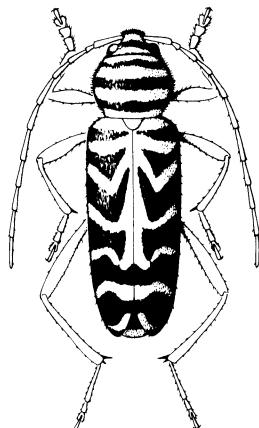
¹ Missing numbers are those assigned in the computer program to families not found in the United States and Canada.

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A CATALOG OF THE COLEOPTERA OF AMERICA NORTH OF MEXICO

FAMILY: DERODONTIDAE

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UNITED STATES
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FOREWORD

Many species of beetles are important pests of agricultural crops, stored food products, forests, wood products and structures, and fabrics. Many other species, in contrast, are beneficial in the biological suppression of pest arthropods and weeds, as well as in the decomposition of plant detritus, animal carcasses, and dung. Part of our national responsibility to American agriculture is to provide correct identification of species of American beetles so that appropriate controls can be applied.

Most information about animal species, whether agricultural, biological, or experimental, is filed under the species' scientific names. These names are therefore the keys to retrieval of such information. Because some species have been known by several names, a complete listing of these names for each species is necessary.

For the user of scientific names, an up-to-date taxonomic catalog providing currently accepted names and pertinent bibliographic and distributional data is an indispensable tool. Although taxonomic literature is constantly changing to reflect current work, the traditional published taxonomic catalog remains static with updating left to the individual user until it is revised. Production of catalogs in the past has been laborious with long printing delays resulting in data that are obsolete before being published. However, the computer now provides the capability of storing, updating, and retrieving taxonomic data; rapid publication through computer-driven typesetting machinery; and a greater degree of currentness and flexibility.

All 124 fascicles in this catalog of the beetles of America north of Mexico are produced by an original group of computer programs, designed and written during a pilot project by personnel of the Systematic Entomology Laboratory and the Communications and Data Services Division, Agricultural Research Service.



R. D. Plowman
Administrator
Agricultural Research Service

PREFACE

The Coleoptera, or beetles, are represented in the world by about 220,000 described species, of which about 24,000 occur in the United States and Canada. A comprehensive taxonomic catalog of beetles for this area has not been available except the series of world-based "Coleopterorum Catalogus" volumes (1909-present, Junk, Berlin). The Leng "Catalogue of the Coleoptera of America North of Mexico" (J. D. Sherman, Jr., Mt. Vernon, NY), which was published in 1920 with supplements to the end of 1947, is a checklist. However, it has served professional and amateur alike for nearly 60 years as the principal source of scientific names of beetles. Since 1947, many new taxa have been described and many changes in status and nomenclature have appeared in numerous scattered publications, but little effort has been made to summarize these changes.

This catalog will supplant the Leng catalog and supply additional essential information. It is produced by an original suite of storage, retrieval, and printing programs written especially for automated taxonomic catalogs.

The catalog for each family is published as a separate fascicle with its introductory text, bibliography, and index. Each family is numbered as listed, but the order of issuance of fascicles is not necessarily in numerical sequence. The publishing of separate fascicles makes data available shortly after they are assembled. Computer tapes for each fascicle are maintained for updating and necessary reprinting.

The information on each family is the responsibility of the respective author or authors. The editors modify it only to correct obvious errors and to make it conform to the requirements of the computer programs.

No original proposal for a new name, taxon, status, or classification is given, such data having been previously published, but new host and distributional data are often listed. The rules of "The International Code of Zoological Nomenclature" are followed.

The geographic scope of this catalog includes the continental United States, Canada, Greenland, and the associated continental islands. Names of taxa found only in other regions are excluded. If the range of a species extends outside these geographic limits, this fact is indicated. Inside the back cover is a map of the 12 faunal regions based on historical and faunal criteria to simplify distribution recordings. Two-letter Postal Service style abbreviations are used for States and Provinces, and faunal regions are indicated in each distribution record by a diagonal line between groups of abbreviations.

It is not the purpose of this catalog to present a complete scheme of higher classification within the order. The familial makeup is somewhat intermediate between that of R. H. Arnett in "The Beetles of the United States" (1960-62, Catholic University Press, Washington, DC) and that of R. A. Crowson in "The Natural Classification of the Families of Coleoptera" (1967, Biddles Ltd., Guildford, England). Modifications of these two systems are largely those advocated by J. F. Lawrence based in part on suggestions by taxonomic specialists for certain families.

Generic groups and higher categories within the family are arranged phylogenetically as indicated by the author of the particular fascicle, and species group names with their respective synonyms are arranged alphabetically.

Names referable to incertae sedis and nomen dubium are listed separately at the end of the nearest applicable taxon with notations as to their status.

Each available name is followed by its author, date proposed, and page number referring to the complete bibliographic citation containing the original description. Following each generic name are the type-species and method of its designation, necessary explanatory notes, and pertinent references on immature stages, taxonomy, -description, ecology, and keys. After the specific name entry are the original genus (if different from the present

placement), type-locality, geographical distribution by State, Province, and broad extralimital units, explanatory notes, pertinent references to immature stages, taxonomy, redescription, and ecology, depository of type-specimen and its sex, and hosts.

In addition to the list under the map of faunal regions (back cover), the following abbreviations are used in this catalog:

ABBREVIATIONS, GENERAL

Amer. Bor.—America Borealis	Mus.—Museum
Amer. Sept.—America Septentrionalis	N. Amer.—North America
Autom.—Automatic	Orig. des.—Original designation
C. Amer.—Central America	Preocc.—Preoccupied
Co.—County	S. Amer.—South America
Cosmop.—Cosmopolitan	Sp.—Species
Design.—Designated	Subseq. monot.—Subsequent monotypy
F.—Female	Subssp.—Subspecies
Holarc.—Holarctic	Taut.—Tautonomy
Isl.—Island	Univ.—University
M.—Male	USA—United States of America
Mex.—Mexico	Var.—Variety
Monot.—Monotypy	W. Ind.—West Indies

MUSEUMS IN THE UNITED STATES AND CANADA¹

AMNH—American Museum of Natural History, New York
ANSP—Academy of Natural Sciences, Philadelphia, PA
BPBM—Bernice P. Bishop Museum, Honolulu
BYUC—Brigham Young University, Provo, UT
CASC—California Academy of Sciences, San Francisco
CISC—University of California, Berkeley
CNCI—Canadian National Collections, Ottawa
CUIC—Cornell University, Ithaca, NY
CWOB—C. W. O'Brien Collection, Tallahassee, FL
DHKC—D. H. Kistner Collection, Chico State College, CA
ELSC—E. L. Sleeper Collection, Long Beach, CA
FMNH—Field Museum of Natural History, Chicago, IL

FSCA—Florida State Collection, Gainesville,
HAHC—H. & A. Howden Collection, Ottawa, Canada
ICCM—Carnegie Museum, Pittsburgh, PA
INHS—Illinois Natural History Survey, Urbana
JGEC—J. G. Edwards Collection, San Jose, CA
KMFC—K. M. Fender Collection, McMinnville, OR
KSUC—Kansas State University, Manhattan
LACM—Los Angeles County Museum, CA
LSUC—Louisiana State University, Baton Rouge
MCZC—Museum of Comparative Zoology, Harvard University, Cambridge, MA
MSUC—Michigan State University, East Lansing
NCSM—North Carolina State University, Raleigh
NYSM—New York State Museum, Albany
OSEC—Oklahoma State University, Stillwater
OSUC—Ohio State University, Columbus
OSUO—Oregon State University, Corvallis

¹Abbreviations for U.S. and Canadian museums abridged from Arnett, R. H., Jr., and Samuelson, G. A., 1969, "Directory of Coleoptera Collections of North America (Canada Through Panama)," Cushing-Malloy, Ann Arbor, MI, 123 pp.

PMNH—Peabody Museum, Yale University, New Haven, CT
PSUC—Pennsylvania State Museum, University Park
PURC—Purdue University, West Lafayette, IN
RUIC—Rutgers University, New Brunswick, NJ
SEMC—Snow Museum, University of Kansas, Lawrence
SJSC—San Jose State College, CA
SLWC—S. L. Wood Collection, Provo, UT

SMSH—Stovall Collection, University of Oklahoma, Norman
TAMU—Texas A. & M. University, College Station
UCDC—University of California, Davis
UICM—University of Idaho, Moscow
UMMZ—University of Michigan, Ann Arbor
UMRM—University of Missouri, Columbia
USNM—U.S. National Museum of Natural History, Washington, DC
WSUC—Washington State University, Pullman

MUSEUMS IN FOREIGN COUNTRIES

BMNH—British Museum (Natural History), London
GUHC—Glasgow University, Hunterian College, Scotland
HMOX—Hope Museum, Oxford, England
HNHM—Hungarian Natural History Museum, Budapest
IPZE—Institut Pflanzenschutzforschung Zweigstelle, Eberswalde, East Germany
IRSB—Institut Royal Sciences Belge, Brussels
MFNB—Museum für Naturkunde (Humboldt), Berlin
MGFT—Museum G. Frey, Tutzing, Munich, West Germany
MHNL—Museum d'Histoire Naturelle, Lyon, France
MNHP—Museum National d'Histoire Naturelle, Paris
MNSL—Museum of Natural Sciences, Leipzig, East Germany
MZBS—Museum Zoologia, Barcelona, Spain
NHRS—Naturhistoriske Riksmuseet, Stockholm

NMPC—Narodni Museum, Prague, Czechoslovakia
SCUT—Spinola College, University of Turin, Italy
SMTD—Staatliches Museum für Tierkunde, Dresden, East Germany
UNAM—Universidad Nacional Autonoma, Mexico City
UZMC—University Zoological Museum, Copenhagen, Denmark
UZMH—University Zoological Museum, Helsinki, Finland
ZMAS—Zoological Museum, Academy of Sciences, Leningrad
ZMPA—Zoological Museum, Polish Academy of Sciences, Warsaw
ZMUL—Zoological Museum, University of Lund, Sweden
ZMUM—Zoological Museum, University of Moscow
ZSBS—Zoologische Sammlung Bayerischen Staates, Munich, West Germany

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We thank the following members of the Communications and Data Services Division, ARS: Sandra Strauss, Mary Goldenbaum, and Marianne Kingston for designing and writing the computer programs, and Margaret Sel-din for developing the editing system. We also thank Elaine Jamison for the data entry necessary for each fascicle.

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Family DERODONTIDAE LeConte, 1861

1

By J. F. Lawrence

The family Derodontidae includes 4 genera and 19 species, of which 3 genera and 9 species occur in America north of Mexico. The group was originally treated as a member of the Clavicornia (Cucujoidea), but Crowson (1955, 1959) considered the derodontids to be among the most primitive of polyphagan beetles and placed them in the Dermestoidea, along with Nosodendriidae, Dermestidae, and Jacobsoniidae. Lawrence and Hlavac (1979) have suggested that the family be placed in a separate superfamily, Derodontoidea, as originally proposed by Crowson (1944).

Derodontids occur in the cooler temperate parts of both Northern and Southern Hemisphere, but they are not commonly encountered and are rare in collections. The genera *Peltastica*, *Derodontus*, and *Laricobius* are holarctic in distribution, whereas *Nothoderodontus* occurs in Chile, Australia, and New Zealand. Species of *Peltastica* have been collected under fermenting bark and at sap flows, whereas *Derodontus* is known to feed on fresh or rotting fruiting bodies of various Basidiomycetes. Members of the genus *Laricobius* are predators of woolly aphids (Homoptera: Adelgidae) occurring on tree trunks. At least one species of *Nothoderodontus* (*N. gourlayi* Crowson from New Zealand) has been collected in association with sooty molds (Ascomycetes: Capnodiaceae). Larvae are known from all genera. Species of *Derodontus* appear to be active in the cooler months of the year, which may account for their scarcity in collection.

This manuscript was received April 1980.

Subfamily PELTASTICINAE LeConte, 1861

Genus PELTASTICA Mannerheim

Peltastica Mannerheim, 1852: 334. Type-species: *Peltastica tuberculata* Mannerheim (orig. des.)
= *tuberculata* Mannerheim.

IMMATURE STAGES: Fukuda, 1963; Lawrence and Hlavac, 1979.

TAXONOMY: Lawrence and Hlavac, 1979; Crowson, 1959.

REDESCRIPTION: Hlavac, 1975: 150 (prothorax); Crowson, 1955 (hindwing); Forbes, 1926 (wing folding).

ECOLOGY: Fukuda, 1963; Lawrence and Hlavac, 1979; Lewis, 1889.

tuberculata Mannerheim, 1852: 334. AK: Sitka Isl. (Baranof Isl.); AK/ BC WA OR ID/ CA.

IMMATURE STAGE: Lawrence and Hlavac, 1979.

REDESCRIPTION: Hatch, 1961: 278, pl. 57, fig. 2.

ECOLOGY: Lawrence and Hlavac, 1979.

Subfamily DERODONTINAE LeConte, 1861

(Laricobiidae Ganglbauer, 1899)

Genus DERODONTUS LeConte

Derodontus LeConte, 1861: 100. Type-species: *Cryptophagus maculatus* Melsheimer (design. by Lawrence and Hlavac, 1979: 402).

Mycetomychus Frivaldszky, 1865: 192, pl. 10, fig. 10. Type-species: *Corticaria macularis* Fuss (orig. des.).

IMMATURE STAGES: Boeing and Craighead, 1931.

TAXONOMY: Lawrence and Hlavac, 1979; Crowson, 1959.

REDESCRIPTION: Crowson, 1944: 283, fig. 46 (metendosternite); Hlavac, 1975: 150 (prothorax).

ECOLOGY: Lawrence and Hlavac, 1979.

KEYS: Lawrence and Hlavac, 1979 (N. Amer.).

esotericus Lawrence, 1979: 403, figs. 1, 9, 28, 35. LA: Audubon State Park, West Feliciana Par. ; ON/ IA IL IN OH/ NY PA MD DC VA/ NH MA/ TX OK/ AR LA AL NC.

TYPE DEPOSITORY: MCZC.

SEX OF TYPE: M.

HOST: *Claudopus nidulans*, *Merulius tremellosus*, *Scutiger ovinus*, *Phlebia radiata*, *Hericium* sp.

maculatus Melsheimer, 1844: 115 (*Cryptophagus*). PA; MI ON/ KS MO IL IN OH KY/ NY PA NJ MD DC VA/ VT/ AR SC NC.

TYPE DEPOSITORY: MCZC?

SEX OF TYPE: F?

IMMATURE STAGE: Boeving and Craighead, 1931: pl. 27.

TAXONOMY: Lawrence and Hlavac, 1979.

REDESCRIPTION: Lawrence and Hlavac, 1979: figs. 10, 27, 34; Stickney, 1923 (head capsule).

ECOLOGY: Lawrence and Hlavac, 1979; Shepard, 1976.

HOST: *Pleurotus ostreatus*, *P. sapidus*, *Pleurotus* sp.

trisignatus Mannerheim, 1852: 361 (*Corticaria*). AK: Sitka Isl. (Baranof Isl.); AK/ BC WA OR ID/ CA.

TAXONOMY: Lawrence and Hlavac, 1979.

REDESCRIPTION: Hatch, 1961: 278, pl. 57, fig. 1; Lawrence and Hlavac, 1979: figs. 11, 36.

ECOLOGY: Lawrence and Hlavac, 1979.

HOST: *Hericium coralloides*, *Inonotus dryophilus*, *Phaeolus schweinitzii*, *Pholiota squarrosa-adiposa*.

unidentatus Lawrence, 1979: 406, figs. 2, 12, 25, 37. CA: Plumas Co., Bucks Lake; OR/ CA.

TYPE DEPOSITORY: MCZC.

SEX OF TYPE: M.

ECOLOGY: Lawrence and Hlavac, 1979.

HOST: *Bondarzewia berkeleyi*, *Fomitopsis pinicola*, *Ischnoderma resinosum*.

Genus LARICOBIOUS Rosenhauer

Laricobius Rosenhauer, 1846: 5, figs. A-L. Type-species: *Laricobius erichsoni* Rosenhauer (orig. des.).

IMMATURE STAGES: Franz, 1958.

TAXONOMY: Brown, 1944; Lawrence and Hlavac, 1979; Crowson, 1959.

REDESCRIPTION: Franz, 1958; Crowson, 1944: 283, fig. 45 (metendosternite) and 1955; Hlavac, 1975: 150 (prothorax).

ECOLOGY: Brown and Clark, 1962; Clark and Brown, 1958 and 1960; Lawrence and Hlavac, 1979.

KEYS: Brown, 1944; Lawrence and Hlavac, 1979 (N. Amer.).

erichsoni Rosenhauer, 1846: 7, pl. f(II) A-L. Austria: Tyrol; WA OR/ NK NS NF.

IMMATURE STAGE: Franz, 1958.

TAXONOMY: Brown and Clark, 1962; Brown, 1944.

REDESCRIPTION: Brown, 1944 (aedeagus).

ECOLOGY: Clark and Brown, 1958.

HOST: *Adelges piceae*, *A. cooleyae*, *A. nuesslini*, *Pineus pineoides*, *P. strobi*.

laticollis Fall, 1916: 14. WA: Seattle; BC WA OR ID/ CA.

TYPE DEPOSITORY: MCZC.

REDESCRIPTION: Hatch, 1961: 277, pl. 52, fig. 9; Brown, 1944 (aedeagus).

nigrinus Fender, 1945: 152. OR: Bear Springs, Wapinitia Cut-off; BC WA OR ID.

TYPE DEPOSITORY: KMFC.

SEX OF TYPE: M.

rubidus LeConte, 1861: 198. DC; MI ON QB/ NK/ NY PA DC/ ME NH MA CT.

TYPE DEPOSITORY: MCZC.

erichsoni (of authors, not Rosenhauer), .

TAXONOMY: Brown, 1944 (synonymy).

REDESCRIPTION: Brown, 1944 (aedeagus); LeConte, 1866: 99.

ECOLOGY: Clark and Brown, 1960.

HOST: *Pineus strobi*, *Adelges* sp.

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INDEX

Names are indexed as follows:

CAPITALS: All names for taxa above the generic level;

Boldface: Valid generic and subgeneric names;

Roman: Valid specific and subspecific names;

Italics: All invalid names such as synonyms, nomina nuda, and extra-limital taxa even though valid.

Parentheses around an author's name indicates that the specific name has been transferred from its original genus. The generic name following the author's name indicates the present placement of the species. Synonyms of species-group names are listed with the original spelling.

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AB Alberta
 AK Alaska
 AL Alabama
 AR Arkansas
 AZ Arizona
 BC British Columbia
 CA California
 CO Colorado
 CT Connecticut
 DC District of Columbia
 DE Delaware
 FL Florida
 GA Georgia
 GL Greenland
 IA Iowa
 ID Idaho
 IL Illinois
 IN Indiana
 KS Kansas
 KY Kentucky
 LA Louisiana
 MA Massachusetts

MB Manitoba
 MD Maryland
 ME Maine
 MI Michigan
 MN Minnesota
 MO Missouri
 MS Mississippi
 MT Montana
 NB New Brunswick
 NC North Carolina
 ND North Dakota
 NE Nebraska
 NF Newfoundland
 NH New Hampshire
 NJ New Jersey
 NM New Mexico
 NS Nova Scotia
 NT Northwest Territories
 NV Nevada
 NY New York
 OH Ohio
 OK Oklahoma

ON Ontario
 OR Oregon
 PA Pennsylvania
 PE Prince Edward Island
 PM St. Pierre-Miquelon
 PQ Quebec
 RI Rhode Island
 SC South Carolina
 SD South Dakota
 SK Saskatchewan
 TN Tennessee
 TX Texas
 UT Utah
 VA Virginia
 VT Vermont
 WA Washington
 WI Wisconsin
 WV West Virginia
 WY Wyoming
 YT Yukon Territory